CLAIMS

1.    A method of detecting abnormalities in digital imagery comprising the steps of:

providing a set of binary images derived from a plurality of slice images representing cross-sections through a body;

performing a first spherical summation operation as a function of voxel locations in said set of images to provide a first spherical summation value;

performing a second spherical summation operation as a function of said voxel locations in said set of images to provide a second spherical summation value;

computing a ratio of said first spherical summation value to said second spherical summation value; and

comparing said ratio to a threshold value and creating a set of detection images by turning voxels ON which exceed said threshold value.


2.    The method of claim 1 wherein said first spherical operation is performed over a spherical region of a first radius and said second spherical operation is performed over a spherical region of a second radius less than said first radius.


3.    The method of claim 1 wherein said slice images comprise binary masks.


4.    The method of claim 3 wherein said binary masks result from segmentation of said slice images.


5.    The method of claim 4 wherein said segmentation corresponds to identification of an object within a body.


6.    The method of claim 5 wherein said binary mask has values of -1 inside said object and values of +1 outside said object.


7.    The method of claim 5 wherein said object comprises a colon.


8.    The method of claim 6 wherein said object comprises a colon.

9.    The method of claim 1 wherein said abnormalities comprise polyps in a colon.